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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/991,467	11/20/2001	Shawn Gettemy	PALM-3688	3779

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EXAMINER

LIU, MING HUN

ART UNIT PAPER NUMBER

2675

DATE MAILED: 02/05/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/991,467

Applicant(s)

GETTEMY ET AL.

Examiner

Ming-Hun Liu

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2675

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 3, 6 and 7 are rejected under 35 U.S.C. 102(b) as being unpatentable by US Patent 6,243,075 to Fishkin et al.

In reference to claim 1, Fishkin discloses a portable computer comprising a bus, a processor (refer to figure 1 where the lines are buses and processor element is item 24 as explained on column 5, line 4) where the housing is made of an electronic muscle material (column 3, lines 4-9). Fishkin also discloses a display device with a selectable hand writing display where the processor causes the display area to be displayed in response to the handing of the muscle material (column 3, lines 28-37).

In reference to claim 3, by referring to column 3, lines 28-32, it is clear that Fishkin teaches that the muscle material is used to detect the right or left-handedness of the user

Referring to claims 6 and 7, Fishkin teaches a system that determined the handedness and generates function buttons in the proximity of the user fingers and activates a display area for handwriting input, depending on the pressure felt on the buttons (column 3, lines 31-37 and column 21, lines 5-11).

Claim Rejections - 35 USC § 103

3. Claims 4, 5, 8-11, 16-20, 25, and 28-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fishkin.

In reference to claims 4 and 5, the sleep and wake mode detection feature is extremely common to the art, examples can be found in almost every PDA, laptop, computer display and monitor. Fishkin offers on column 20, line 13 and column 18 line 12, different methods of entering and exiting sleep mode.

One skilled in the art understands that a sensing component, such as the electronic muscle material, can be easily used to signal the computer system to transition between sleep and wake modes.

It would have been obvious to one skilled in the art to implement this sleep and wake feature because it is a well-known, established solution, for conserving power in electronic devices.

In reference to claims 8-10, Fishkin discloses in his invention visual and non-visual feedback to the user (column 5, lines 7-10). Several non-visual feedback methods are possible and Fishkin teaches various possibilities on column 7, lines 45-60. On line 57 Fishkin specifically teaches “tactile based feedback” which as one skilled in the art understands may include vibrations and protrusions such as the proposed Braille example. Fishkin does not use the exact tactical indicants as the applicant, nonetheless he proposes similar tactile methods that coincide in spirit with the applicant’s.

In reference to claim 11, Fishkin teaches a device that has a deformable surface. The molding to a person’s hand to enhance the ergonomics is a limitation that inherent to the

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Fishkin's device. Though not explicitly stated in the specifications, one skilled in the art understands that because of the deformable material discussed by Fishkin, naturally the device would have more of an ergonomic fit.

Claim 16 is rejected on grounds presented in the rejection of claims 1, 4 and 5.

Claims 17-20 are rejected on grounds presented in the rejections of claims 3, 6 and 7.

Claim 25 is rejected on grounds presented in the rejection of claim 3.

Claim 28 is rejected on grounds presented in the rejection of claims 4 and 5.

Claims 29-32 is rejected on grounds presented in the rejection of claims 4 and 5.

4. Claims 2 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fishkin and Pelrine, a SRI international reference as noted in the background to the invention.

Fishkin teaches that the computer system include a power supply (item 25) that is a rechargeable battery (column 5, lines 12-15).

Fishkin, however does not teach that the battery can be charged by the movement of the muscle material.

As explained by Ron Pelrine, dielectric elastomers are conventional muscle materials that have energy generating functions. With both the muscle material and rechargeable battery in place, it would have been simple to connect the two elements together to take advantage of the energy generating properties of the muscle material.

It would have been obvious to one skilled in the art to connect the two elements together since Pelrine clearly outlines that in the introduction that, dielectric elastomer materials should be used "in harvesting available mechanical energy for low-power devices" (paragraph 2, line 5).

5. Claims 12 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fishkin and US Patent 4,857,916 to Bellin.

Fishkin's invention lacks a user identification system activated through reading of the contour of the hand. However, the idea of biometric identification using the hand shape memory is common to the art. As Bellin explains in his invention it is possible to use identify a user by analyzing the grip of the user.

Due to the fact that hand contour identification is well known technology and in light of Bellin's disclosure, the deformable material in Fishkin's invention could be used pressure sensing in Bellin's invention.

One skilled in the art would have implemented Ito's invention in order to add an addition user security feature.

6. Claims 13-15 and 21-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fishkin and Kornbluh, a SRI international reference as noted in the background to the invention.

In reference to claims 13-15 and 21-24, the applicant describes possible uses for the electronic muscle material. These possible usages are well known in the art and are described by Kornbluh article. In section 4.5 Kornblush describes the use of the electronic muscle materials in acoustic actuation. In section 4.9 he teaches the use of the material in diaphragms. Kornblush does not go into detail about the exact application of the material, but offers the necessary information for ones skilled in the art to apply in future constructions. As demonstrated by Kornbluh, the concept of using muscle material for acoustics is not a novel idea.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ming-Hun Liu whose telephone number is 703-305-8488. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve Saras can be reached on 703-305-9720. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ming-Hun Liu


DENNIS-DOON CHOW
PRIMARY EXAMINER